

REMARKS

Reconsideration of the application, as amended, is respectfully requested.

I. STATUS OF CLAIMS

Claims 1-20 are pending. Claims 1, 3, 4, 6, 8, 10, 12, 14 and 19 have been amended to more particularly point out and distinctly claim that which applicants regard as their invention. In particular, claim 1 has been amended to further clarify that "...the absorption assembly comprises absorption stages, the anneal assembly comprises anneal stages and the cooling assembly comprises cooling stages, and wherein pins are disposed on at least one of the absorption stages, the anneal stages or the cooling stages to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages". Moreover, claim 12 has also been amended to further clarify that "...the absorption assembly comprises absorption stages, the anneal assembly comprises anneal stages and the cooling assembly comprises cooling stages, and wherein pins are disposed on at least one of the absorption stages, the anneal stages or the cooling stages and move upward and downward to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages".

Support for the above amendments may be found throughout the specification as originally filed. No new matter has been added by virtue of this amendment.

II. 35 U.S.C. 102(b) Rejections

Claims 1-2, 5, 9, 12-13, 15 and 18-20 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,816,098 to Davis et al. ("the Davis patent").

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. (See MPEP 2133, *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

However, Davis fails to teach or suggest all of the features recited in claims 1 and 12.

As noted above, claim 1 has been amended to further clarify that "...the absorption assembly comprises absorption stages, the anneal assembly comprises anneal stages and the cooling assembly comprises cooling stages, and wherein pins are disposed on at least one of the absorption stages, the anneal stages or the cooling stages to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages". Moreover, claim 12 has also been amended to further clarify that "...the absorption assembly comprises absorption stages, the anneal assembly comprises anneal stages and the cooling assembly comprises cooling stages, and wherein pins are disposed on at least one of the absorption stages, the anneal stages or the cooling stages and move upward and downward to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages".

In particular, Davis at the very least fails to teach or suggest a remote plasma enhanced cleaning apparatus having pins disposed on at least one of the absorption stages, the anneal stages or the cooling stages to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages, as essentially recited in claim 1. In addition, Davis also at the very least fails to teach or suggest a remote enhanced cleaning apparatus having pins disposed on at least one of the absorption stages, the anneal stages or the cooling stages and which move upward and downward to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages, as essentially recited in claim 12.

In contrast, the support pins 53 referred to by the Examiner on **page 4 of the instant Office Action** and described on Column 17, rows 56-59 of the Davis patent are structurally distinct features from the pins recited in claims 1 and 12. Rather, the support pins 53 of Davis assist in vacuum sealing an interior portion of the process chamber of process module 104 from the remainder of the interior of process module 104. (See Col. 17, lines 56-Col.18, lines 1-5 of **Davis**). However, these support pins 53 described in Davis are not involved in anyway whatsoever in separating silicon wafers from at least one of absorption stages, anneal stages or cooling stages, as required by claims 1 and 12. For example, an exemplary embodiment of the present invention describes and illustrates pins 509, 709, 909 which are within the scope of claims 1 and 12 and also how these pins 509, 709, 909 separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages. (See page 11, lines 13-15,

page 13, lines 20-21, page 14, line 1, page 15, lines 1-3 and Figs. 3-5 of the present specification).

Clearly, the support pins 53 of Davis do not have the same structure and thus are not the same feature as the pins disposed on at least one of the absorption stages, the anneal stages or the cooling stages to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages, as essentially recited in claim 1. It is also clear that the support pins 53 of Davis do not have the same structure and thus are not the same feature as the pins disposed on at least one of the absorption stages, the anneal stages or the cooling stages which move upward and downward to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages, as essentially recited in claim 12.

Therefore, for the reasons set forth above, the Davis patent fails to anticipate claims 1 and 12 and thus removal of the above rejection to these claims is respectfully requested. As claims 2, 5 and 9 depend from and incorporate all of the limitations of claim 1 and claims 13, 15 and 18-20 depend from and incorporate all of the limitations of claim 12, removal of the rejection to these dependent claims is likewise requested.

III. 35 U.S.C. 103(a) Rejections

Claims 3-4, 6-8, 10-11, 14 and 16-17 are rejected as being unpatentable over Davis as applied to claims 1-2, 5, 9, 12-13, 15 and 18-20 above, in view of U.S. Patent No. 5,909,994 to Blum et al. ("the Blum patent").

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (See MPEP 2143.03; *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).

As noted above, Davis at the very least fails to teach or suggest a remote plasma enhanced cleaning apparatus having pins disposed on at least one of the absorption stages, the anneal stages or the cooling stages to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages as essentially recited in claim 1.

Moreover, as discussed, Davis also at the very least fails to teach or suggest a remote enhanced cleaning apparatus having pins disposed on at least one of the absorption stages, the anneal stages or the cooling stages and which move upward and downward to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages, as essentially recited in claim 12. As claims 3, 4, 6-8, 10-11 depend from and incorporate all of the limitations of claim 1 and claims 14, 16 and 17 depend from and incorporate all of the limitations of claim 12, Davis fails to teach or suggest all of the features recited in these dependent claims as well.

Furthermore, even if the alleged teachings of Blum with regard to providing tandem processing stages were combined with Davis in the manner proposed in the instant Office, this combination would still fail to teach or suggest all of the limitations recited in claims 3, 4, 6-8, 10-11, 14, 16 and 17. In particular, the above combination of Davis with Blum at the very least fails to teach or suggest a remote plasma enhanced cleaning apparatus having pins disposed on at least one of the absorption stages, the anneal stages or the cooling stages to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages, as essentially recited in claims 3, 4, 6-8, 10-11. Additionally, the above combination of Davis and Blum also at the very least fail to teach or suggest a remote enhanced cleaning apparatus having pins disposed on at least one of the absorption stages, the anneal stages or the cooling stages and which move upward and downward to separate the silicon wafers from at least one of the absorption stages, the anneal stages or the cooling stages, as essentially recited in claims 14, 16 and 17.

Therefore, withdrawal of the above rejection to claims 3, 4, 6-8, 10-11, 14, 16 and 17 is respectfully requested.

IV. CONCLUSION:

In summary, applicants respectfully submit that the instant application is in condition for allowance. Early notice to that end is earnestly solicited.

If a telephone conference would be of assistance in furthering prosecution of the subject application, applicant requests that the undersigned be contacted at the number below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Scott L. Appelbaum", written over a horizontal line.

Scott L. Appelbaum
Reg. No. 41,587
Attorney for Applicants

F. Chau & Associates, LLC
130 Woodbury Road
Woodbury, NY 11797
Tel: (516) 692-8888
Fax: (516) 692-8889